



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002

Prepared For
Auroralight Inc

2742 Loker Avenue West
Carlsbad
CA, 92010
United States

Catalog Number

HPL8-2-27

Order Number

11745044

Test Number

11745044.21

Test Date

2017-05-15

Prepared By

Javier Caban, Technician

Approved By

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Conical 8" copper shade with clear glass lens, cylindrical copper stem and brass base
Lamp: 64 white LEDs
Mounting: Path/Area
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 8.00 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Semicutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 25.1 °C
Voltage: 12.01 VAC
Current: 0.3033 A
Power: 2.208 W
Power Factor: 0.606
Frequency: 60 Hz
Current THD: 85.5 %

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	12.01 VAC	0.3033 A	2.208 W	0.606	60 Hz	85.5 %

Summary of Results

Spacing Criteria

0-180: 1.27
90-270: 1.27

Total Lumen Output:

132.2 Lumens

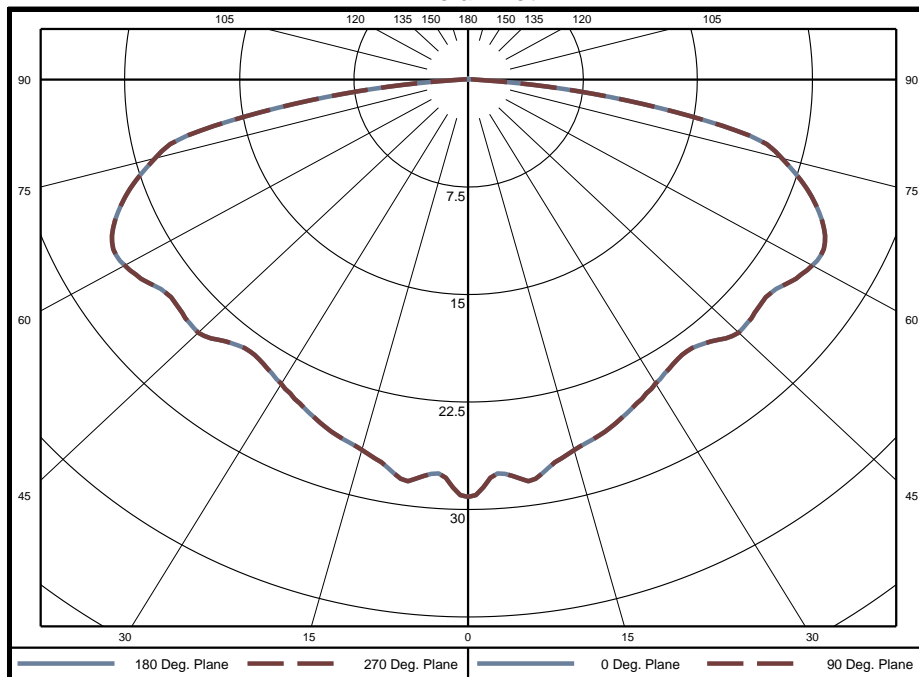
Luminaire Efficacy:

59.9 lm/w

Maximum Candela:

29 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.67	0.5%	60-65	12.64	9.6%	120-125	0.01	0.0%
5-10	2.01	1.5%	65-70	12.59	9.5%	125-130	0.01	0.0%
10-15	3.23	2.4%	70-75	11.80	8.9%	130-135	0.01	0.0%
15-20	4.36	3.3%	75-80	10.10	7.6%	135-140	0.01	0.0%
20-25	5.40	4.1%	80-85	5.13	3.9%	140-145	0.01	0.0%
25-30	6.30	4.8%	85-90	0.81	0.6%	145-150	0.01	0.0%
30-35	7.11	5.4%	90-95	0.15	0.1%	150-155	0.01	0.0%
35-40	7.95	6.0%	95-100	0.06	0.0%	155-160	0.01	0.0%
40-45	9.09	6.9%	100-105	0.03	0.0%	160-165	0.01	0.0%
45-50	10.06	7.6%	105-110	0.03	0.0%	165-170	0.01	0.0%
50-55	10.78	8.2%	110-115	0.02	0.0%	170-175	0.00	0.0%
55-60	11.82	8.9%	115-120	0.02	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	37	28.0%
0-60	79	59.6%
0-90	132	99.7%
90-180	0	0.3%



Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12	29.12
	5	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62	27.62
	10	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90	27.90
	15	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76	26.76
	20	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15	26.15
	25	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31	25.31
	30	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49	24.49
	35	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84	23.84
	40	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03	24.03
	45	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98	24.98
	50	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75	24.75
	55	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07	25.07
	60	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94	25.94
	65	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72	25.72
	70	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87	23.87
	75	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21
	80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80	14.80
	85	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33
	90	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
	95	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
	100	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
	105	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	110	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	115	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	120	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	125	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	130	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	135	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	140	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	145	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	150	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	155	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	160	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	165	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	170	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	175	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	180	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	898	898
	45	1089	1089
	55	1348	1348
	65	1877	1877
	75	2527	2527
	85	1531	1531



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	157	157	157	157	154	154	154	154	147	147	147	140	140	140	135	135	135	132
1	139	131	123	116	135	127	121	114	122	116	111	116	111	107	111	107	104	101
2	123	109	98	88	119	106	96	87	101	92	85	97	89	83	92	86	81	77
3	110	93	80	69	106	91	78	68	86	76	67	82	73	66	79	71	64	61
4	99	80	67	56	96	78	66	56	75	64	55	71	62	54	68	60	53	49
5	90	71	57	47	87	69	56	46	66	54	46	63	53	45	60	51	44	41
6	83	63	49	40	80	61	49	39	59	47	39	56	46	38	54	45	38	35
7	76	56	43	34	74	55	43	34	53	42	34	51	41	33	49	40	33	30
8	71	51	39	30	69	50	38	30	48	37	30	46	36	29	45	36	29	26
9	66	47	35	27	64	46	34	26	44	34	26	43	33	26	41	32	26	23
10	62	43	31	24	60	42	31	24	41	31	24	39	30	23	38	29	23	21

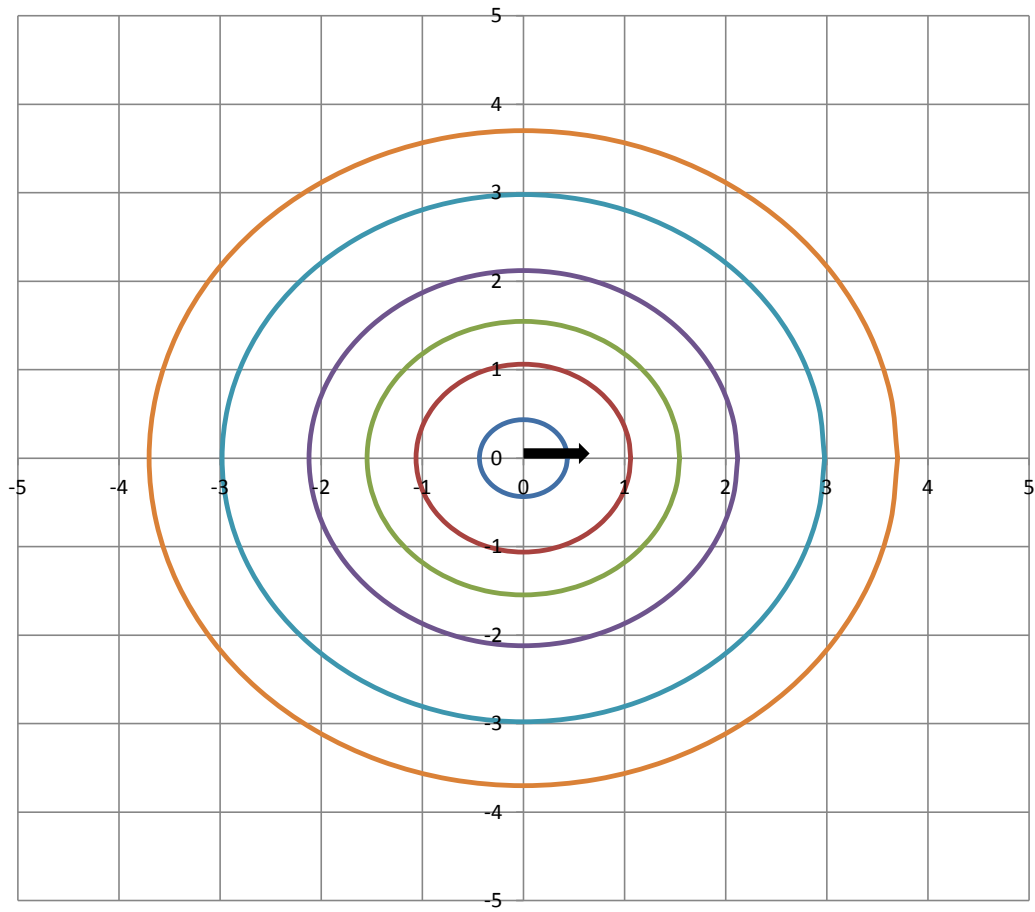
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	29.12 Candela
Central Cone Intensity:	28 Candela
Beam Flux:	126.1 Lumens
Beam Angle (0-180):	160.2 Degrees
Beam Angle (90-270):	160.2 Degrees
Field Angle (0-180):	171.5 Degrees
Field Angle (90-270):	171.5 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		1.82	5.07
6.00		0.809	7.60
8.00		0.455	10.1
10.0		0.291	12.7
12.0		0.202	15.2
14.0		0.149	17.7
16.0		0.114	20.3



ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height





IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	11.0	8.3%
FM	(30-60)	28.4	21.5%
FH	(60-80)	23.5	17.8%
FVH	(80-90)	3.0	2.3%
BL	(0-30)	11.0	8.3%
BM	(30-60)	28.4	21.5%
BH	(60-80)	23.5	17.8%
BVH	(80-90)	3.0	2.3%
UL	(90-100)	0.2	0.2%
UH	(100-180)	0.2	0.2%
Total		132.4	100.0%
BUG Rating	B0 U1 G0		